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| 10/653,034 | 08/29/2003 | James E. King | 5681-71200 | 1532 |

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| EXAMINER | |
|---|---|
| CHERRY, STEPHEN J | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2863 | |

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/653,034 | KING ET AL. | |
| | Examiner | Art Unit | |
| | Stephen J. Cherry | 2863 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *27 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-22, 25, 26, and 29-35* is/are rejected.

7)☒ Claim(s) *23,24,27 and 28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

In view of the following rejection of claims 1-13, and 34 under 35 U.S.C. 101, the finality of the Office Action dated 6-13-2005 is withdrawn. If applicant wishes to further pursue appeal, applicant must request reinstatement of the appeal (see 37 CFR 1.193 (b) (2) (ii) ).

### *Specification*

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13 and 34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims merely recite method steps and do not produce only an abstract result, therefor they are directed to non-statutory subject matter.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 12, 14-22, 25, 29-32, and 34-35 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,829,725 to Gurumoorthy et al.

Regarding claim 1, Gurumoorthy discloses a method of monitoring the health of a system module in a system during state transitioning, wherein the system further includes a monitor module operationally connected to the system module ('725, col. 6, line 38, "watchdog timer" part of system, 20), the method comprising: - the system module outputting a status signal for predetermined system status points during state transitioning of the system module ('725, col. 6, line 21 and 42, "attempt to launch operating system", and "operating successfully launches"); and - the monitor module being operable to start a timer on detecting a first status signal and resetting the timer on detecting a subsequent status signal, whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a determined period ('725, col. 6, line 20, and fig. 3, 212).

Regarding claim 2, and in view of the rejection of claim 1, Gurumoorthy discloses a method wherein the state transitioning comprises at least one of starting the system module ('725, col. 6, line 20) and shutting down the system module.

Regarding claim 3, and in view of the rejection of claim 1, Gurumoorthy discloses a method, wherein a signal is output by the system module for at least one of the following system status points, namely: at power on self test start; at power on self test end; at power on or reset; at an end of initial hardware power up, on starting booting ('725, col. 6, line 20), on ending booting, on a shutdown or panic power-off and on a system reset.

Regarding claim 4, and in view of the rejection of claim 1, Gurumoorthy discloses a method, wherein the timer is reset on detecting each of a set of successive status signals, whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a respective determined period for each of a plurality of pairs of successive status signals ('725, col. 6, line 24)

Regarding claim 5, and in view of the rejection of claim 1, Gurumoorthy discloses a method, wherein an initial period for the timer is determined to exceed an expected maximum time to a subsequent status signal assuming a healthy system module ('725, col. 6, line 20, and fig. 3).

Regarding claim 6, and in view of the rejection of claim 5, Gurumoorthy discloses a method, wherein the monitor module is operable to set the configuration of the system module, and wherein the monitor module is operable to use information about the configuration to compute a determined period to be applied for the timer ('725, col. 6, line 24, module selects operating system, and corresponding times).

Regarding claim 7, and in view of the rejection of claim 5, Gurumoorthy discloses a method, wherein the system module is operable to inform the monitor module of a determined period to be applied for the timer ('725, col. 6, line 24).

Regarding claim 8, and in view of the rejection of claim 5, Gurumoorthy discloses a method, wherein the system module is operable to provide the monitor module with details of the configuration of the system module, and wherein the monitor module is operable to use the configuration information to compute a determined period to be applied for the timer ('725, col. 6, line 24).

Regarding claim 9, and in view of the rejection of claim 5, Gurumoorthy discloses a method, wherein the monitor module is operable to interrogate the system module to determine details of the configuration of the system module, and wherein the monitor module is operable to use the configuration information to compute a determined period

to be applied for the timer ('725, col. 6, line 20, monitor interagates system for status of OS load, status determines subsequent OS load and corresponding time).

Regarding claim 12, and in view of the rejection of claim 1, Gurumoorthy discloses a method, wherein the monitor module is a service processor ('725, col. 6, line 20, monitor processes startup routine).

Regarding claim 14, Gurumoorthy discloses a computer system configured to receive a system module and comprising a monitor module operationally to be connected to the system module ('725, col. 6, line 38, "watchdog timer" part of system, 20), wherein: - the monitor module is operable to start a timer on detecting a first status signal output by a received system module at one of predetermined system status points during state transitioning of the system module; and - the monitor module is operable to reset the timer on detecting a subsequent status signal output by a received system module at another predetermined system status point during state transitioning of the system module, whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a determined period ('725, col. 6, line 20, and fig. 3, 212).

Regarding claim 15, and in view of the rejection of claim 14, Gurumoorthy discloses a computer system, wherein the state transitioning comprises at least one of starting the system module ('725, col. 6, line 20) and shutting down the system module.

Regarding claim 16, and in view of the rejection of claim 14, Gurumoorthy discloses a computer system, wherein the monitor module is responsive to signals output by a received system module for at least one of the following system status points, namely: at power on self test start; at power on self test end; at power on or reset; at an end of initial hardware power up, on starting booting ('725, col. 6, line 20), on ending booting, on a shutdown or panic power-off and on a system reset.

Regarding claim 17, and in view of the rejection of claim 14, Gurumoorthy discloses a computer system, wherein the timer is operable to be reset on detecting each of a set of subsequent status signals, whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a respective determined period for each of a plurality of pairs of successive status signals ('725, col. 6, line 24).

Regarding claim 18, and in view of the rejection of claim 14, Gurumoorthy discloses a computer system, wherein an initial period for the timer is determined to exceed an expected maximum time to a subsequent status signal assuming a healthy system module ('725, col. 6, line 20, and fig. 3).

Regarding claim 19, and in view of the rejection of claim 18, Gurumoorthy discloses a computer system, wherein the monitor module is operable to set the

configuration of the system module, and wherein the monitor module is operable to use information about the configuration to compute a determined period to be applied for the timer ('725, col. 6, line 24, module selects operating system, and corresponding times).

Regarding claim 20, and in view of the rejection of claim 18, Gurumoorthy discloses a computer system of claim 18, wherein the monitor module is responsive to a system module providing a determined period to be applied for the timer ('725, col. 6, line 24).

Regarding claim 21, and in view of the rejection of claim 18, Gurumoorthy discloses a computer system, wherein the monitor module is responsive to a system module providing details of the configuration of the system module, and wherein the monitor module is operable to use the configuration information to compute a determined period to be applied for the timer ('725, col. 6, line 24).

Regarding claim 22, and in view of the rejection of claim 18, Gurumoorthy discloses a computer system of claim 18, wherein the monitor module is operable to interrogate the system module to determine details of the configuration of the system module, and wherein the monitor module is operable to use the configuration information to compute a determined period to be applied for the timer ('725, col. 6, line 20, monitor interagates system for status of OS load, status determines subsequent OS load and corresponding time).

Regarding claim 25, and in view of the rejection of claim 14, Gurumoorthy discloses a computer system of claim 14, wherein the monitor module is a service processor ('725, col. 6, line 20, monitor processes startup routine).

Regarding claim 29, Gurumoorthy discloses a system module for a computer system configured to receive said system module and comprising a monitor module to be operationally connected to the system module, the system module being operable to output status signals at predetermined system status points during state transitioning of the system module, whereby the monitor module is operable to set a time on receipt of a first such status signal and to reset the timer on detecting a subsequent status signal, and whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a determined period ('725, col. 6, line 20, and fig. 3, 212).

Regarding claim 30, and in view of the rejection of claim 29, Gurumoorthy discloses a system module, wherein the state transitioning comprises at least one of starting the system module and shutting down the system module ('725, col. 6, line 20).

Regarding claim 31, and in view of the rejection of claim 29, Gurumoorthy discloses a system module, wherein the system module is operable to output a status signal for at least one of the following system status points, namely: at power on self

test start; at power on self test end; at power on. or reset; at an end of initial hardware power up, on starting booting ('725, col. 6, line 20), on ending booting, on a shutdown or panic power-off and on a system reset.

Regarding claim 32, and in view of the rejection of claim 29, Gurumoorthy discloses a system module, wherein the system module is operable to provide the monitor module with an indication of the determined period to be applied for the timer ('725, col. 6, line 24).

Regarding claim 34, Gurumoorthy discloses a carrier medium carrying instructions for monitoring the health of a system module in a system during power transitioning, wherein a monitor module is operationally connected to the system module and the system module is operable to output a status signal at predetermined system status points during at least one of starting the system module and shutting down the system module, the instructions being operable to control the monitor module:

- to start a timer on detecting a first status signal; and
- to reset the timer on detecting a subsequent status signal, whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a determined period ('725, col. 6, line 20 and fig. 3, the carrier is 10 and 12 indicated in fig. 1).

Regarding claim 35, Gurumoorthy discloses a computer system comprising a system module and a monitor module operationally connected to the system module, wherein:

- the system module comprises means for outputting a status signal for predetermined system status points during state transitioning of the system module; and
- the monitor module comprises means for start a timer on detecting a first status signal and for resetting the timer on detecting a subsequent status signal, whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a determined period ('725, col. 6, line 20 and fig. 3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13, 26, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,829,725 to Gurumoorthy et al in view of U.S. Patent 6,688,965 to Crippen et al.

The claims recite, as disclosed by Crippen:

> the system module outputting a status signal for predetermined system status points during state transitioning of the system module ('725, col. 6, line 21 and 42, "attempt to launch operating system", and "operating successfully launches"); and - the monitor module being operable to start a timer on detecting a first status signal and resetting the timer on detecting a subsequent status signal, whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a determined period ('725, col. 6, line 20, and fig. 3, 212), wherein the monitor module is a service processor ('725, col. 6, line 20, monitor processes startup routine).
>
> monitor module operationally to be connected to the system module ('725, col. 6, line 38, "watchdog timer" part of system, 20), wherein: - the monitor module is operable to start a timer on detecting a first status signal output by a received system module at one of predetermined system status points during state transitioning of the system module; and - the monitor module is operable to reset the timer on detecting a subsequent status signal output by a received system module at another predetermined

system status point during state transitioning of the system module, whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a determined period ('725, col. 6, line 20, and fig. 3, 212); wherein the monitor module is a service processor ('725, col. 6, line 20, monitor processes startup routine).

a monitor module to be operationally connected to the system module, the system module being operable to output status signals at predetermined system status points during state transitioning of the system module, whereby the monitor module is operable to set a time on receipt of a first such status signal and to reset the timer on detecting a subsequent status signal, and whereby the timer is operable to indicate a failed transitioning of the system module in the event that the timer is not reset within a determined period ('725, col. 6, line 20, and fig. 3, 212).

However, Gurumoorthy does not teach the use of blade systems.

The claims further recite, as disclosed by Crippen, a rack mountable blade system ('965, fig. 1).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the blade system of Crippen with the invention of Gurumoorthy to allow high reliability operation ('965, col. 1, line 12).

***Allowable Subject Matter***

Claims 23-24, and 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 23 recites, "wherein the monitor module is operable to record a time for a given pair of status signals on a given initiation of the system and to adapt the determined period for a subsequent system initiation". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 24 recites, "wherein the monitor module is operable to record a time between a given pair of status signals on a given initiation of the system and to employ a determined period equal to a multiple of the actual time between a given pair of status signals for a subsequent system initiation". This feature in combination with the remaining claimed structure avoids the prior art of record.

***Response to Arguments***

Applicant's arguments filed 2-27-2006 have been fully considered but they are not persuasive.

Regarding claims 1, 14, 29, 34 and 35, applicant argues that Gurumoorthy does not teach a monitor module which is operable to start and reset the timer; however, '725, figure 3, and col. 5, line 41, depicts such a monitor module, which at block 210 sets the watchdog timer for each iteration of the depicted loop, wherein block 220 is looped back to block 202. Thus, a second iteration of the depicted flowchart would involve a resetting of the watchdog timer.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the OS loader or operating system outputs status signals for predetermined system status points during state transitioning) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). However, Gurumoorthy does disclose a system that examines such status signals in figure 3 block 212. The condition of operating system successfully loading is monitored in each successive iteration instruction 212 in the disclosed programming loop, thereby demonstrating claimed first status signal and subsequent status signal.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (571) 272-2272. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJC

MICHAEL NGHIEM
PRIMARY EXAMINER